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(54) Title TOOTHBRUSH WITH A MOVABLE TRANSPLANTED BRISTLE PART

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Claim

A toothbrush with a movable transplanted bristle part characterized by consisting of a brush part that has a supporting rod vertically provided at the opposite side of the transplanted bristle part and a handle part that has clearance area in the head part, and the supporting rod of the aforementioned brush part is freely inserted in a manner so that it can freely move inside the clearance area in the aforementioned head part of the handle part.

Brief description of the figures

Figure 1 is a diagonal view diagram that shows the disassembled structure of Application Example 1 in this invention. Figure 2 is a side view diagram of a vertical cross-section at II-II of the parts in Figure 1 that are assembled together. Figure 3 is a front view diagram of a vertical cross-section at III-III of the parts in Figure 1 that are assembled together. Figures 4, 5, and 6 are diagonal view diagrams that show other clearance areas in Application Example 1 in this invention. Figure 6 is a diagonal view diagram that shows another clearance area in Application Example 1 in this invention. Figure 7 is a diagonal view diagram that shows Application Example 2 in this invention. Figure 8 is a side view diagram of a vertical cross-section at VIII-VIII of Figure 7. Figure 9 is a front view diagram of a vertical cross-section at IX-IXI of Figure 7. Figure 10 is a diagonal view diagram that shows another engagement piece in Application Example 2 in this invention. Figure 11 is a diagonal view diagram that shows the upper face of another clearance area in Application Example 2 in this invention. Figure 12 is a side vertical

view diagram that shows another engagement piece and the upper face of the clearance area in Application Example 2 in this invention. Figure 13 is a diagonal view diagram that shows the engagement piece in Figure 12. Figure 14 is a diagonal view diagram that shows the upper face of the clearance area in Figure 12. Figure 15A and Figure 16A are front cross-sectional explanatory diagrams that indicate the operating state of the engagement piece in the clearance area in Figure 12. Figure 15B and Figure 16B are partial side view cross-sectional diagrams that respectively show the engagement state of the upper face of the engagement piece and the upper face of the clearance area in Figure 12.

1...the head part of the handle part, 2...the grip part of the handle part, 3...brush part, 4, 4a, 4b, 4c, 104...clearance areas, 5, 5a, 5b, 5c...upper clearance walls, 6, 6a, 6b, 6c...lower clearance walls, 7, 7a, 7b, 7c...the flat face of the clearance wall, 8...projection piece, 9...Transplanted bristle part, 10...projection table, 11...supporting rod, 12...engagement ball, 13...crowning cap, 14...the bottom face of the crowning cover, 105...through hole, 112, 112a, 112b...engagement pieces, 113, 113a, 113b...the upper face of the engagement piece, 114, 114a, 114b...the upper face of the clearance area, 115, 115b...the lower face of the clearance area.

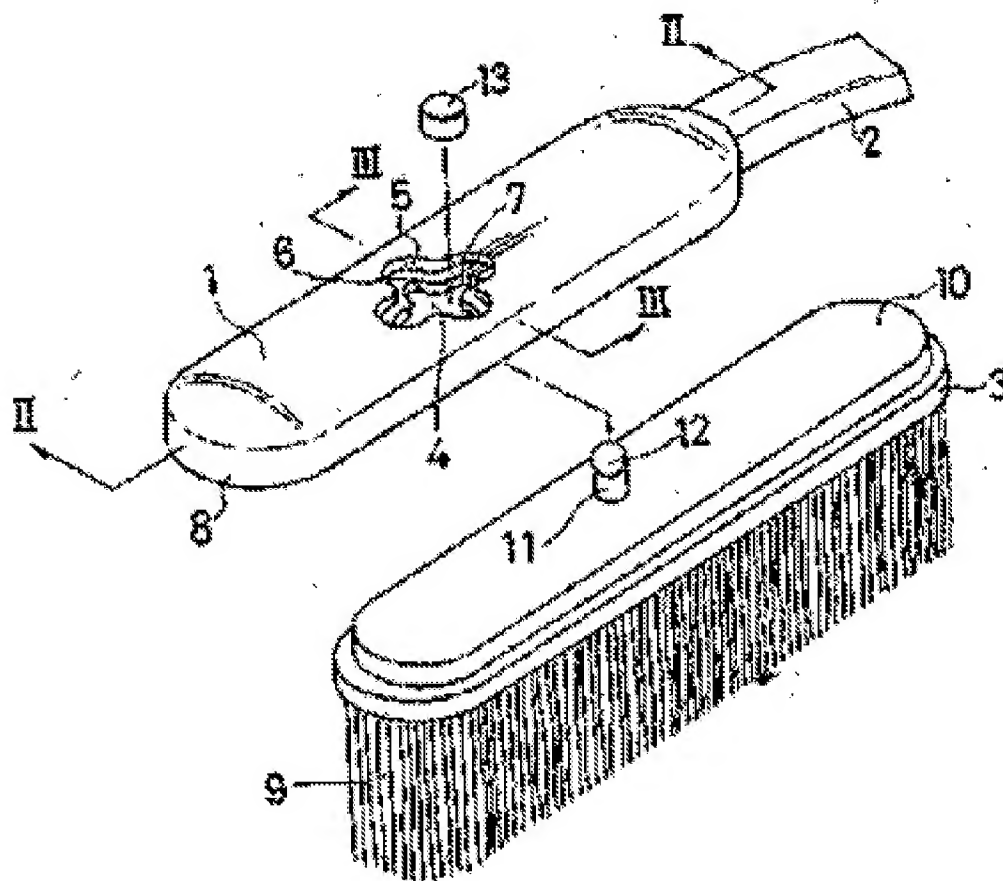


Figure 1

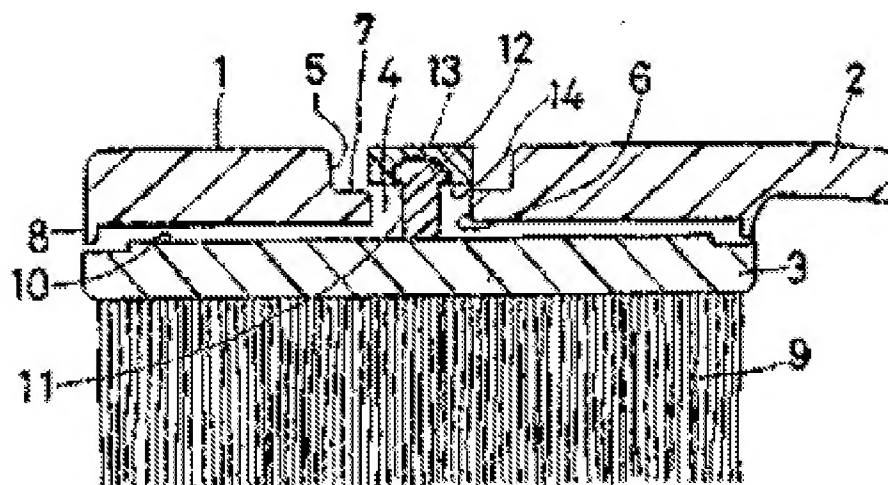


Figure 2

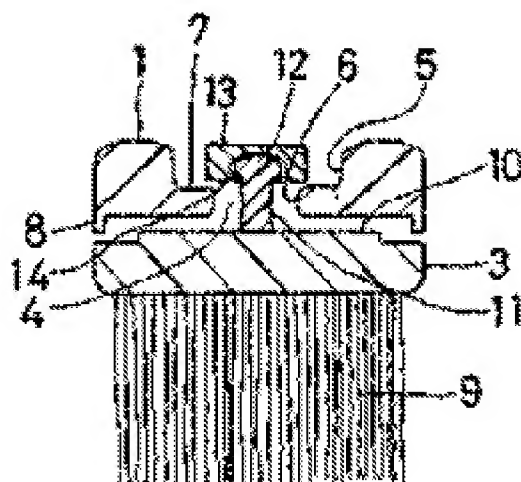


Figure 3

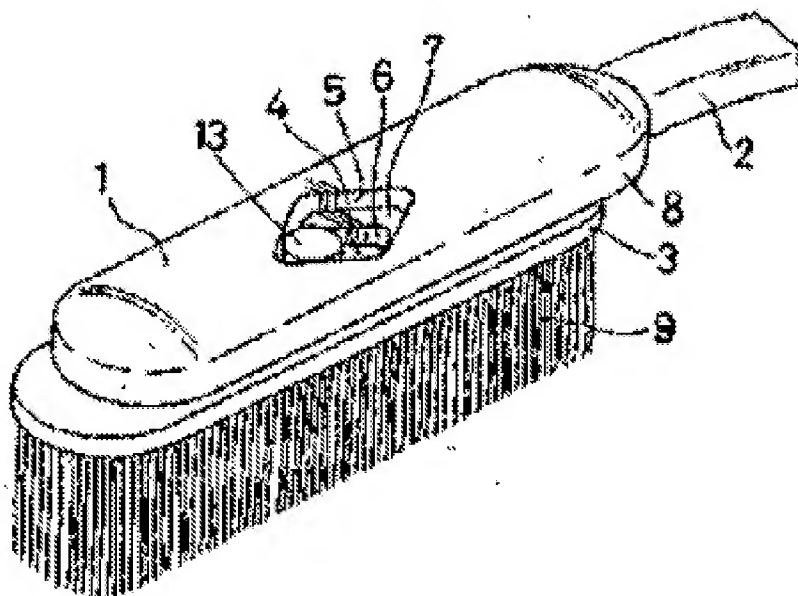


Figure 4

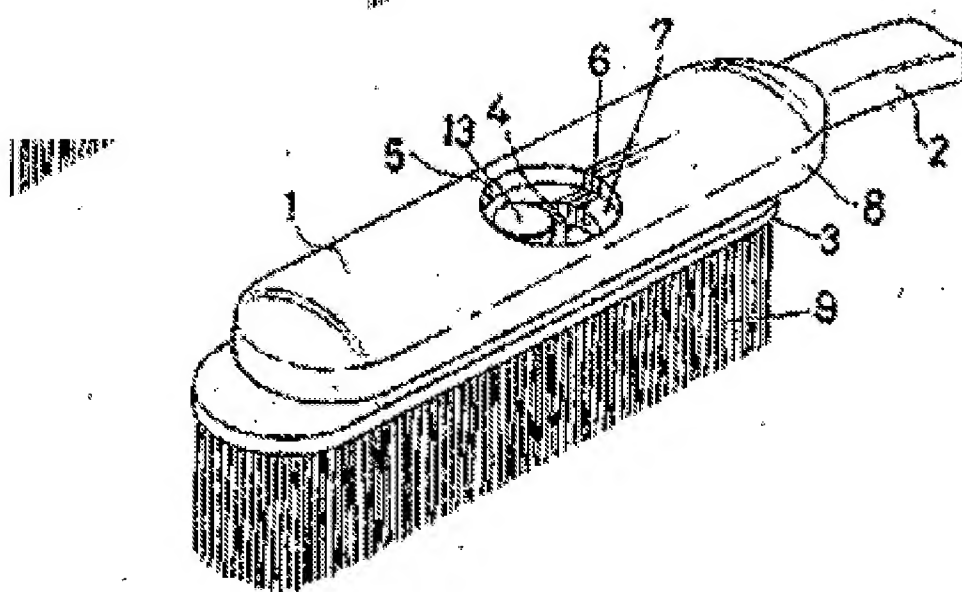


Figure 5

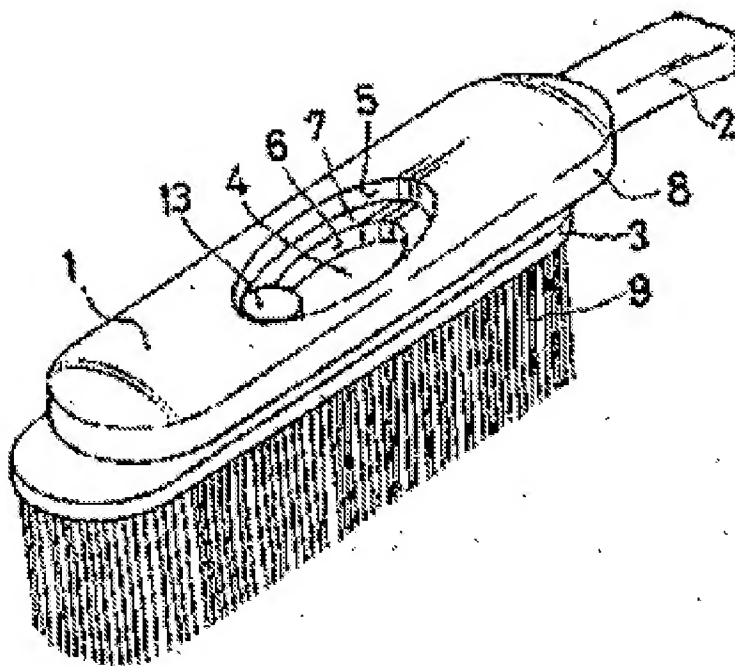


Figure 6

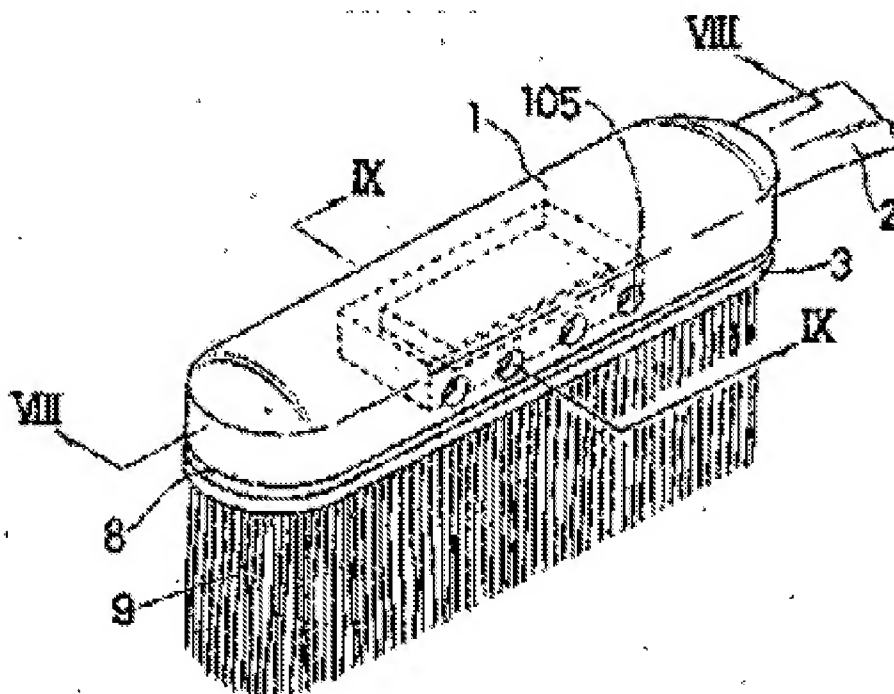


Figure 7

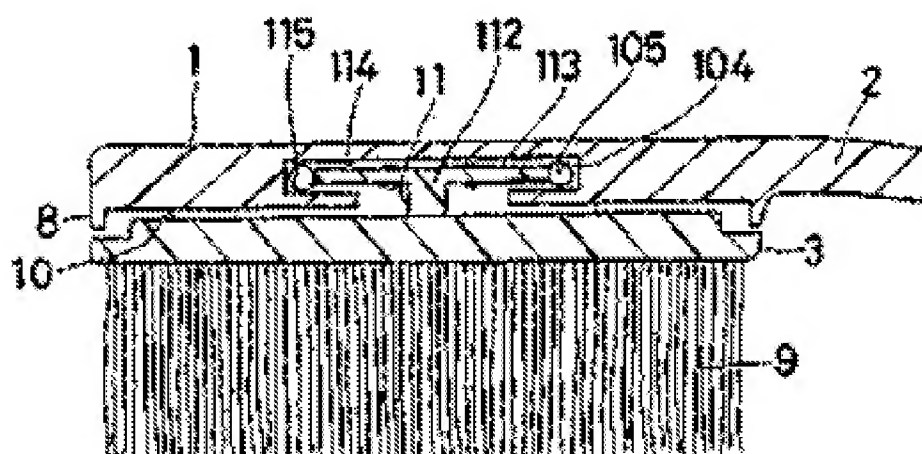


Figure 8

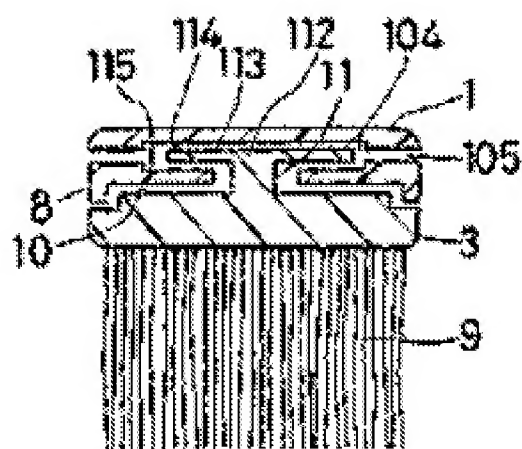


Figure 9

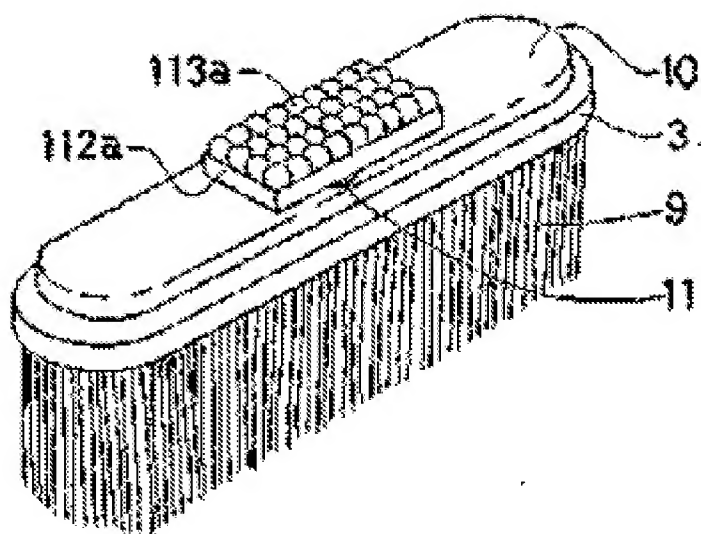


Figure 10

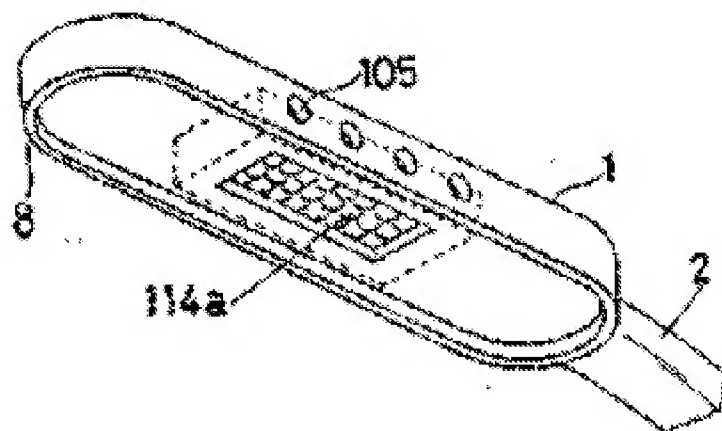


Figure 11

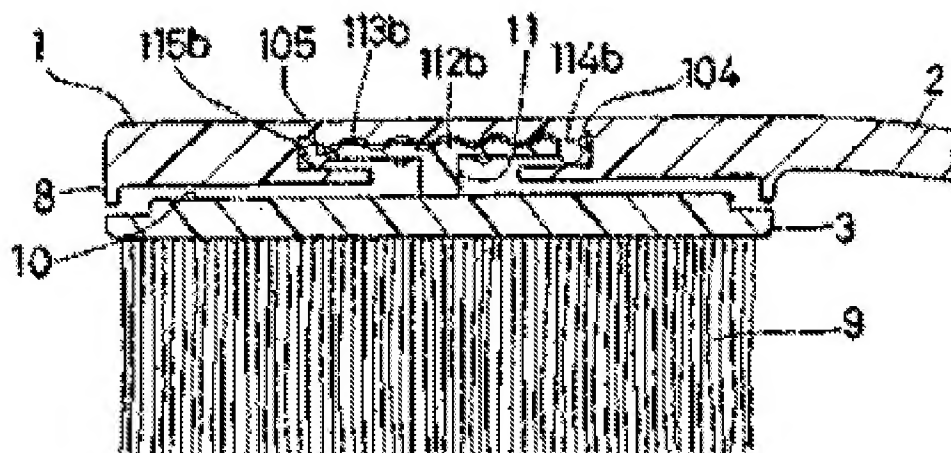


Figure 12

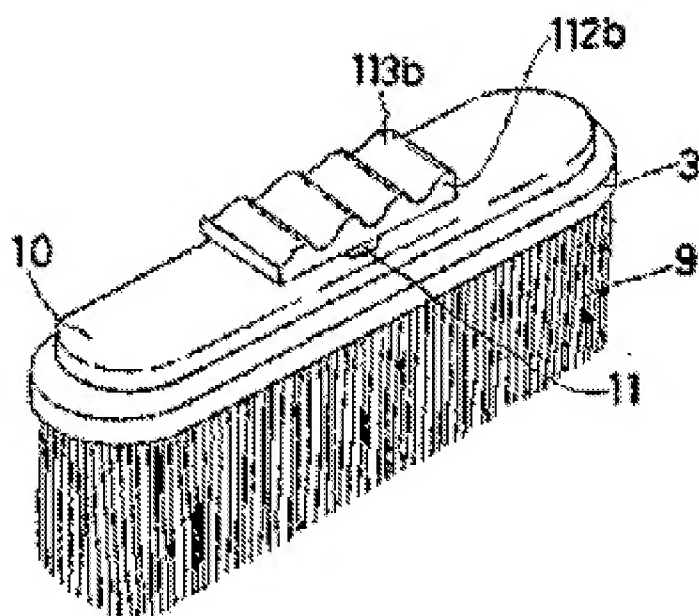


Figure 13

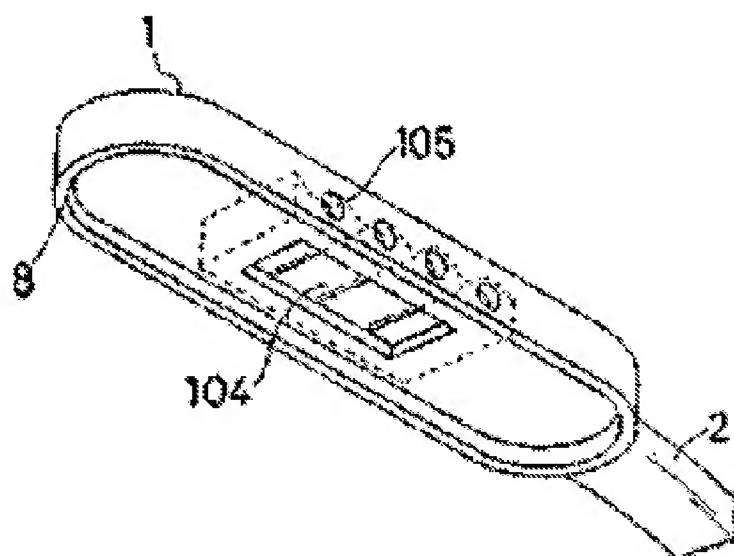


Figure 14

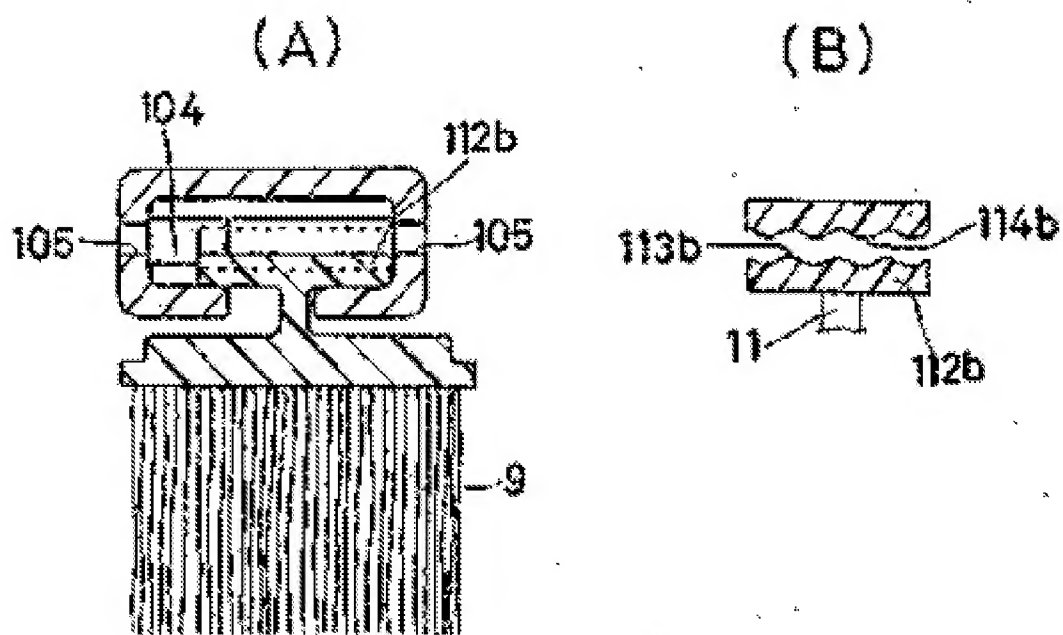


Figure 15

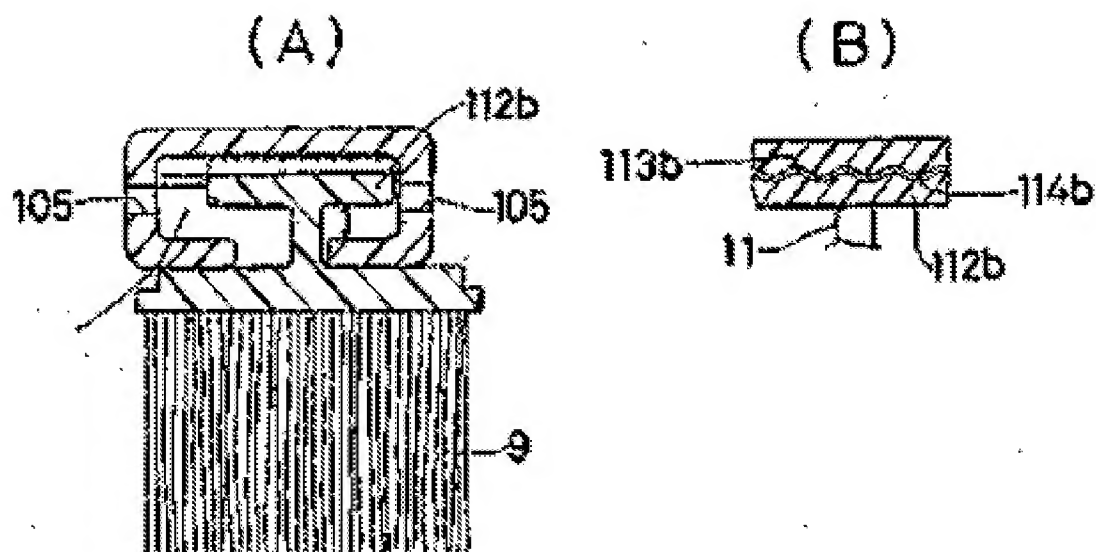


Figure 16

Amendment on March 12, 1986

The range of the claim for Japanese Utility Model registration will be amended as below.

Claim

A toothbrush with a movable transplanted bristle part characterized by consisting of a brush part that has a supporting part provided at the opposite side of the transplanted bristle part and a handle part that has clearance area in the head part, and the supporting part of the aforementioned brush part is arranged in a manner so that it can freely move inside the clearance area in the aforementioned head part of the handle part.